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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,888	12/30/1999	TOSHIYUKI FUTAKATA	6342-0039-2	3055

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EXAMINER

KUMAR, PANKAJ

ART UNIT PAPER NUMBER

2631

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/446,888

Applicant(s)

FUTAKATA ET AL.

Examiner

Pankaj Kumar

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Needham et al USPN 6,188,767.
4. As per claim 1, Sato teaches a spreading code assigning (Sato fig. 1: 110 is assigned a code number; col. 1 line 35 indicates 64 spread codes) method in a direct sequence CDMA mobile communication system (Sato col. 1 lines 12 to 21 "digital mobile phone ... using ... CDMA ...") for transmitting a signal (Sato fig. 1: output is to an antenna) after spreading said signal doubly (Sato fig. 1: 106, 108, 112) with a first spreading code in a first spreading code group (Sato fig. 1: 109, 110, bit rate, code number) and a second spreading code in a second spreading code group (Sato fig. 1: 114, base station code number), said first spreading code having the same repetition period as an information symbol period (Sato fig. 2: period of first spread code is the same as that of a repeated d1" or d1'), said second spreading code having a longer repetition period than the information symbol period (Sato fig. 2: period of second spread

Art Unit: 2631

code is the same as that of a unrepeated d1" or d1'), said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal (inherent), a rate of said spreading codes being higher than an information rate (Sato fig. 2: in channel #2, rate of spreading code e2 is higher than d1' and rate of spreading code c2 is higher than d1'), ... to which said base station group belongs as said second spreading code (Sato fig. 1: base station code number is input into 114, col. 1).

5. Sato does not teach said method comprising the step of assigning a code associated with each base station group including more than one base station or a code associated with each network type.

6. Needham teaches said method comprising the step of assigning a code associated with each base station group including more than one base station or a code associated with each network type in fig. 4: 402; also fig. 6 element 609 and fig. 7 element 712 both having "generate longcode using talk group id".

7. It would have been obvious to one skilled in the art at the time of the invention to modify Sato to assign a code associated with each group or network type where the group includes more than one base station.

8. One would be motivated to do so for the reason taught in Needham – in order to support a group call – column 1 paragraphs 3, 4, 6.

9. As per claim 2, Sato teaches a signal transmitting method in a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a first spreading code in a first spreading code group and a second spreading code in a second

Art Unit: 2631

spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate, (discussed in claim 1 up to here) ... as said second spreading code (Sato fig. 1: base station code number is input into 114); and transmitting a signal (Sato fig. 1: output is to an antenna) which is spread with said second spreading code between a one of said more than one base station and a mobile station (Sato col. 1 lines 22 to 37: "... from base station to mobile station ..."). (also see above discussions)

10. Sato does not teach said method comprising the steps of assigning a code associated with each base station group including more than one base station or a code associated with each network type to which said base station group belongs.

11. Needham teaches said method comprising the steps of assigning a code associated with each base station group including more than one base station or a code associated with each network type to which said base station group belongs in fig. 4: 402; also fig. 6 element 609 and fig. 7 element 712 both having "generate longcode using talk group id".

12. It would have been obvious to one skilled in the art at the time of the invention to modify Sato to assign a code associated with each group or network type where the group includes more than one base station.

13. One would be motivated to do so for the reason taught in Needham – in order to support a group call – column 1 paragraphs 3, 4, 6.

Art Unit: 2631

14. As per claim 3, Sato teaches a direct sequence CDMA mobile communication system for transmitting a signal after spreading said signal doubly with a first spreading code in a first spreading code group and a second spreading code in a second spreading code group, said first spreading code having the same repetition period as an information symbol period, said second spreading code having a longer repetition period than the information symbol period, said first spreading code and said second spreading code forming spreading codes for enlarging a band of a wide-band signal, a rate of said spreading codes being higher than an information rate, (discussed in claim 1 up to here). Sato also teaches in fig. 1 and col. 1 that the base station code number is input into 114; and a mobile station communicating with said base station by using a signal which is spread by said second spreading code assigned to said base station (Sato fig. 1: base station code number entering 114). (also see above discussions)

15. Sato does not teach said system comprising: a base station using said second spreading code assigned to each base station group or said second spreading code assigned to each network type to which said base station group belongs said base station group including more than one of said base station.

16. Needham teaches said system comprising: a base station using said second spreading code assigned to each base station group or said second spreading code assigned to each network type to which said base station group belongs said base station group including more than one of said base station in fig. 4: 402; also fig. 6 element 609 and fig. 7 element 712 both having “generate longcode using talk group id”.

Art Unit: 2631

17. It would have been obvious to one skilled in the art at the time of the invention to modify Sato to assign a code associated with each group or network type where the group includes more than one base station.

18. One would be motivated to do so for the reason taught in Needham – in order to support a group call – column 1 paragraphs 3, 4, 6;

19. As per claims 4-6, they are discussed in respect to other claims above.

20. As per claim 7, Sato teaches the transmitter in the direct sequence CDMA mobile communication system as claimed in claim 4, said transmitter comprising: second spreading code control means (Sato fig. 1: 114 with its input) which generates (Sato fig. 1: 114) and controls (Sato fig. 1: input into 114) said second spreading code (Sato fig. 1: output of 114) associated with each base station group or each network type to which said base station group belongs (Sato fig. 1: base station code number).

21. As per claim 8, Sato teaches the receiver in the direct sequence CDMA mobile communication system as claimed in claim 5, said receiver comprising: second spreading code control means which generates and controls said second spreading code associated with each base station group or each network type to which said base station group belongs. (Discussed in respect to other claims. See above discussions)

Art Unit: 2631

22. As per claim 9, Sato teaches the transceiver in the direct sequence CDMA mobile communication system as claimed in claim 6, said transceiver comprising: second spreading code control means which generates and controls said second spreading code associated with each base station group or each network type to which said base station group belongs.

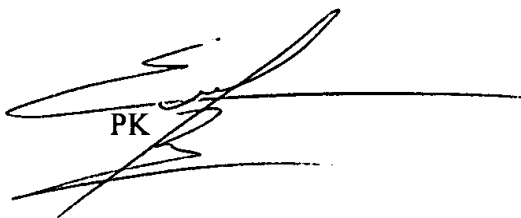
(Discussed in respect to other claims. See above discussions)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



PK